

SUPERIOR TESTERS

368 West Second, Holsington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Lane
 LEASE & WELL NO. Richards # 2 ELEVATION 2759 KB. DATE 9/19/83 FORMATION TESTED Lansing
 SEC 20 TWP 16 RANGE 29 INTERVAL TESTED 3932 TO 3976 TOTAL DEPTH 3976
 TEST NO. # 1 O.K. yes TOP PACKER DEPTH 3932 FT. BOTTOM PACKER DEPTH ---- FT. PACKER SIZE 6 & 3/4
 STRADDLE no CONV yes TOOL SIZE 5 1/2 OD. TOOL JOINT SIZE 4 1/2 FH. ANCHOR LENGTH 44 FT
 HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT none SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN
 REVERSED OUT no VISCOSITY 52 WEIGHT 9.5 DUAL PACKERS no DID PACKER HOLD yes DID TOOL PLUG no
 DRILLING CONTRACTOR T-Bird # 1
 TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 3380 FT. I.D. DRILL PIPE 3.80 IN
 TOOL JOINT SIZE 4 1/2 XH. IN. LENGTH WEIGHT PIPE 563 FT. I.D. WEIGHT PIPE 2.75 IN
 TOOL JOINT SIZE ---- IN. LENGTH DRILL COLLARS ---- FT. I.D. DRILL COLLARS ---- IN
 TOOL OPEN I.F.P. FROM 3:45 p. m to 4:15 p. m Hr 30 min From (B) 53 P.S.I. to (C) 138 P.S.
 TOOL CLOSED I.C.I.P. FROM 4:15 p. m to 5:00 p. m Hr 45 min (D) 982 P.S.
 TOOL OPEN F.F.P. FROM 5:00 p. m to 6:00 p. m Hr 60 min From (E) 170 P.S.I. to (F) 297 P.S.
 TOOL CLOSED F.C.I.P. FROM 6:00 p. m to 6:45 p. m Hr 45 min (G) 929 P.S.
 INITIAL HYDROSTATIC PRESSURE (A) 2109 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2098 MAXIMUM TEMPERATURE 98 °F
 BLOW Good blow off bottom of bucket in 25 minutes 1st opening.
Good blow off bottom of bucket in 34 minutes 2nd opening.
 RECOVERY - TOTAL FEET 600
 RECOVERED 600 FEET OF Muddy water, with few Oil spots on top.
 RECOVERED FEET OF
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 RECOVERED FEET OF
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 REMARKS None.

TICKET NO 7796

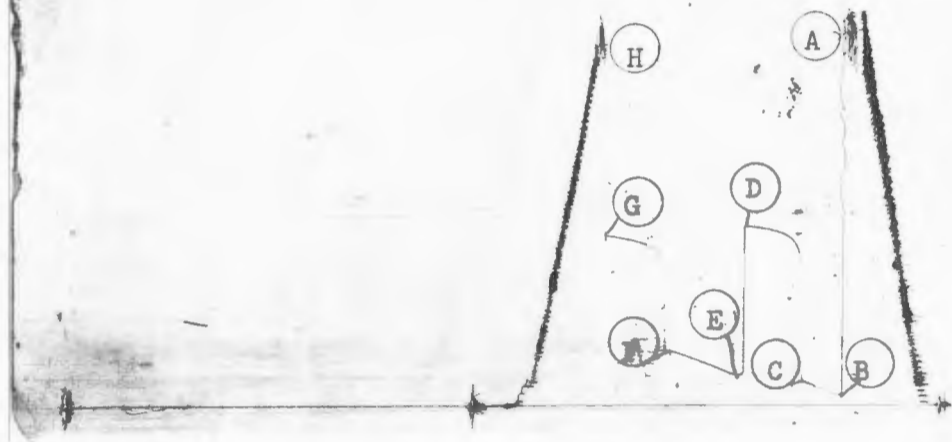
WITNESSED BY Stanton Cox TOOL OPERATOR Ivan Suppes

3825

DST

7794

Thunderbird Drilling
Richards # 2
3932-3976 Lansing
9/19/83



This image shows a completely blank white rectangular area enclosed within a thin black frame. There are no markings, text, or illustrations present on the page.

This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2109	2046	P.S.I.
(B) First Initial Flow Pressure	53	53	P.S.I.
(C) First Final Flow Pressure	131	138	P.S.I.
(D) Initial Closed-in Pressure	982	982	P.S.I.
(E) Second Initial Flow Pressure	170	165	P.S.I.
(F) Second Final Flow Pressure	297	297	P.S.I.
(G) Final Closed-in Pressure	929	935	P.S.I.
(H) Final Hydrostatic Mud	2098	1972	P.S.I.

SUPERIOR TESTERS

368 West Second, Hoisington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Lane
 LEASE & WELL NO. Richards # 2 ELEVATION 2759 KB. DATE 9/20/83 FORMATION TESTED Lansing
 SEC. 20 TWP. 16 RANGE 29 INTERVAL TESTED 4034- TO 4130 TOTAL DEPTH 4130
 TEST NO. # 2 D.K. yes TOP PACKER DEPTH 4034 FT. BOTTOM PACKER DEPTH ---- FT. PACKER SIZE 6 & 3/4
 STRADDLE no CONV. yes TOOL SIZE 5 1/2 OD. TOOL JOINT SIZE 4 1/2 FH. ANCHOR LENGTH 96 FT.
 HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT none SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN.
 REVERSED OUT no VISCOSITY 59 WEIGHT 9.7 DUAL PACKERS no DID PACKER HOLD yes DID TOOL PLUG no
 DRILLING CONTRACTOR T-Bird # 1

TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 3519 FT. I.D. DRILL PIPE 3.80 IN.
 TOOL JOINT SIZE 4 3/8 XH. IN. LENGTH WEIGHT PIPE 563 FT. I.D. WEIGHT PIPE 2.75 IN.
 TOOL JOINT SIZE ---- IN. LENGTH DRILL COLLARS ---- FT. I.D. DRILL COLLARS ---- IN.

TOOL OPEN I.F.P. FROM 7:45 p. m to 8:15 p. m Hr 30 min From (B) 85 P.S.I. to (C) 170 P.S.I.

TOOL CLOSED I.C.I.P. FROM 8:15 p. m to 9:00 p. Hr 45 min (D) 961 P.S.I.

TOOL OPEN F.F.P. FROM 9:00 p. m to 10:00 p. m Hr 60 min From (E) 202 P.S.I. to (F) 308 P.S.I.

TOOL CLOSED F.C.I.P. FROM 10:00 p. m to 10:45 p. m Hr 45 min (G) 897 P.S.I.

INITIAL HYDROSTATIC PRESSURE (A) 2172 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2151 MAXIMUM TEMPERATURE 99 °F

BLOW Good blow off bottom of bucket in 21 minutes 1st opening.

Good blow off bottom of bucket in 45 minutes 2nd opening.

RECOVERY - TOTAL FEET 553

RECOVERED 3 FEET OF Clean Oil.

RECOVERED 550 FEET OF Muddy water, with few spots of Oil.

RECOVERED ----- FEET OF -----

RECOVERED ----- FEET OF -----

RECOVERED ----- FEET OF -----

RECOVERED ----- FEET OF -----

RECOVERED ----- FEET OF -----

RECOVERED ----- FEET OF -----

RECOVERED ----- FEET OF -----

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RECOVERED ----- FEET OF -----

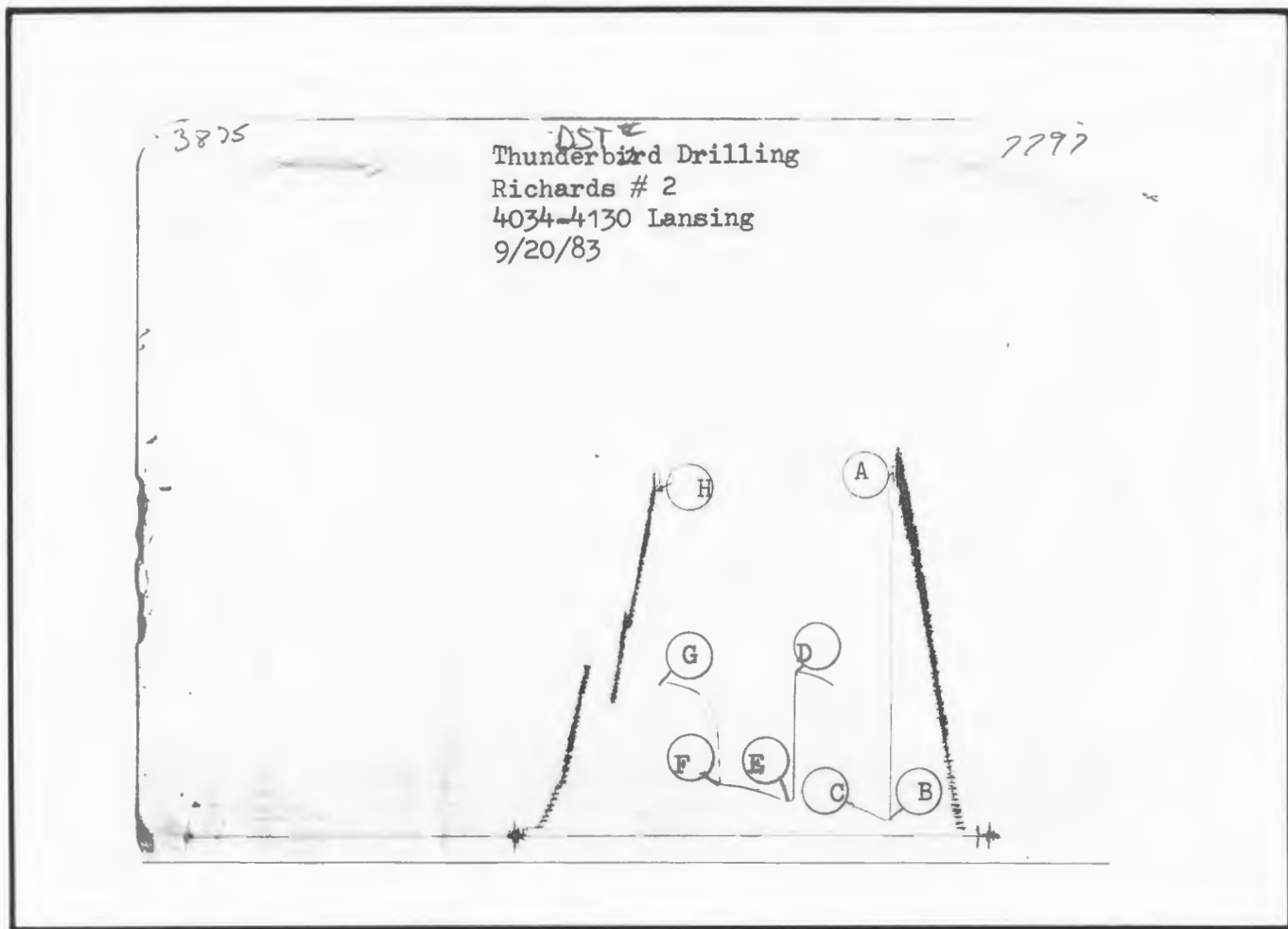
RECOVERED ----- FEET OF -----

RECOVERED ----- FEET OF -----

REMARKS None.

TICKET NO. 7797

WITNESSED BY Stanton Cox TOOL OPERATOR Ivan Suppes



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2172	2130	P.S.I.
(B) First Initial Flow Pressure	85	91	P.S.I.
(C) First Final Flow Pressure	170	170	P.S.I.
(D) Initial Closed-in Pressure	961	965	P.S.I.
(E) Second Initial Flow Pressure	202	206	P.S.I.
(F) Second Final Flow Pressure	308	308	P.S.I.
(G) Final Closed-in Pressure	897	907	P.S.I.
(H) Final Hydrostatic Mud	2151	2088	P.S.I.

SUPERIOR TESTERS

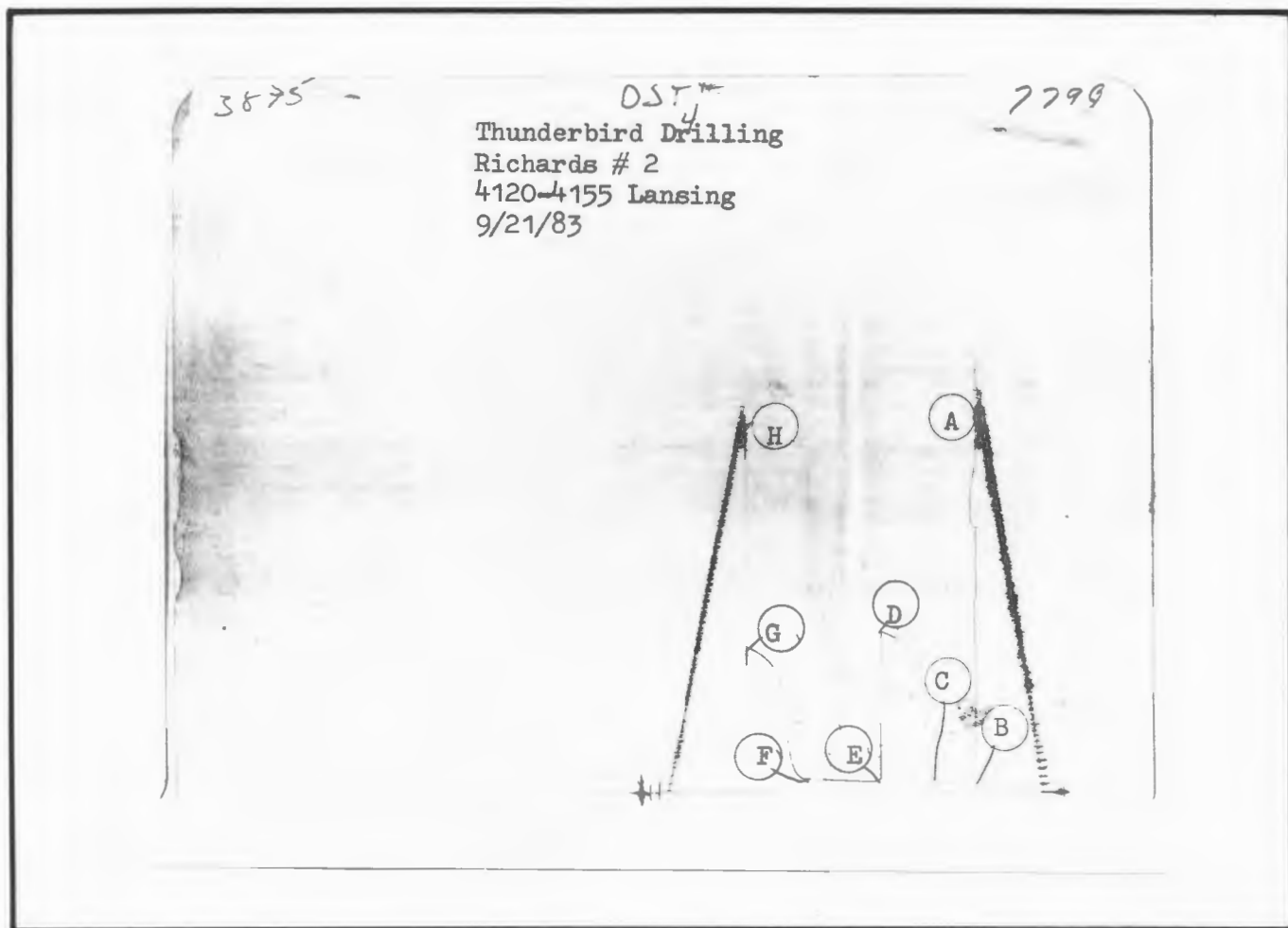
368 West Second, Hoisington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Lane
 LEASE & WELL NO. Richards # 2 ELEVATION 2759 KB. DATE 9/21/83 FORMATION TESTED Lansing
 SEC 20 TWP 16 RANGE 29 INTERVAL TESTED 4120 TO 4155 TOTAL DEPTH 4155
 TEST NO. # 4 O.K. yes TOP PACKER DEPTH 4120 FT. BOTTOM PACKER DEPTH ---- FT. PACKER SIZE 6 & 3/4
 STRADDLE no CONV. yes TOOL SIZE 5 1/2 OD. TOOL JOINT SIZE 4 1/2 FH. ANCHOR LENGTH 35' FT.
 HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT none SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN.
 REVERSED OUT no VISCOSITY 46 WEIGHT 9.7 DUAL PACKERS no DID PACKER HOLD yes DID TOOL PLUG no
 DRILLING CONTRACTOR T-Bird # 1

TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 3593 FT. I.D. DRILL PIPE 3.80 IN.
 TOOL JOINT SIZE 4 1/2 XH. IN. LENGTH WEIGHT PIPE 563 FT. I.D. WEIGHT PIPE 2.75 IN.
 TOOL JOINT SIZE ----- IN. LENGTH DRILL COLLARS ----- FT. I.D. DRILL COLLARS ----- IN.
 TOOL OPEN I.F.P. FROM 1:30 p. m to 2:00 p. m Hr 30 min From (B) 42 P.S.I. to (C) 53 P.S.I.
 TOOL CLOSED I.C.I.P. FROM 2:00 p. m to 2:45 p. m Hr 45 min (D) 939 P.S.I.
 TOOL OPEN F.F.P. FROM 2:45 p. m to 3:45 p. m Hr 60 min From (E) 63 P.S.I. to (F) 74 P.S.I.
 TOOL CLOSED F.C.I.P. FROM 3:45 p. m to 4:30 p. m Hr 45 min (G) 843 P.S.I.
 INITIAL HYDROSTATIC PRESSURE 2256 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2235 MAXIMUM TEMPERATURE 104 °F
 BLOW Weak blow building 3" into water 1st opening.
Weak blow building 4" into water 2nd opening.

RECOVERY - TOTAL FEET 120
 RECOVERED 60 FEET OF Gas & Oil cut mud. (4%gas, 42%Oil, 15%water, 39% mud.)
 RECOVERED 60 FEET OF Oil & gas cut muddy water. (4%gas, 5%Oil, 51%water, 40% mud
 RECOVERED 90 FEET OF Gas in the pipe.
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
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 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 REMARKS None.

TICKET NO. 7799
 WITNESSED BY Stanton Cox TOOL OPERATOR Ivan Suppes



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2256	2203	P.S.I.
(B) First Initial Flow Pressure	42	42	P.S.I.
(C) First Final Flow Pressure	53	51	P.S.I.
(D) Initial Closed-in Pressure	939	939	P.S.I.
(E) Second Initial Flow Pressure	63	63	P.S.I.
(F) Second Final Flow Pressure	74	80	P.S.I.
(G) Final Closed-in Pressure	843	854	P.S.I.
(H) Final Hydrostatic Mud	2235	2161	P.S.I.

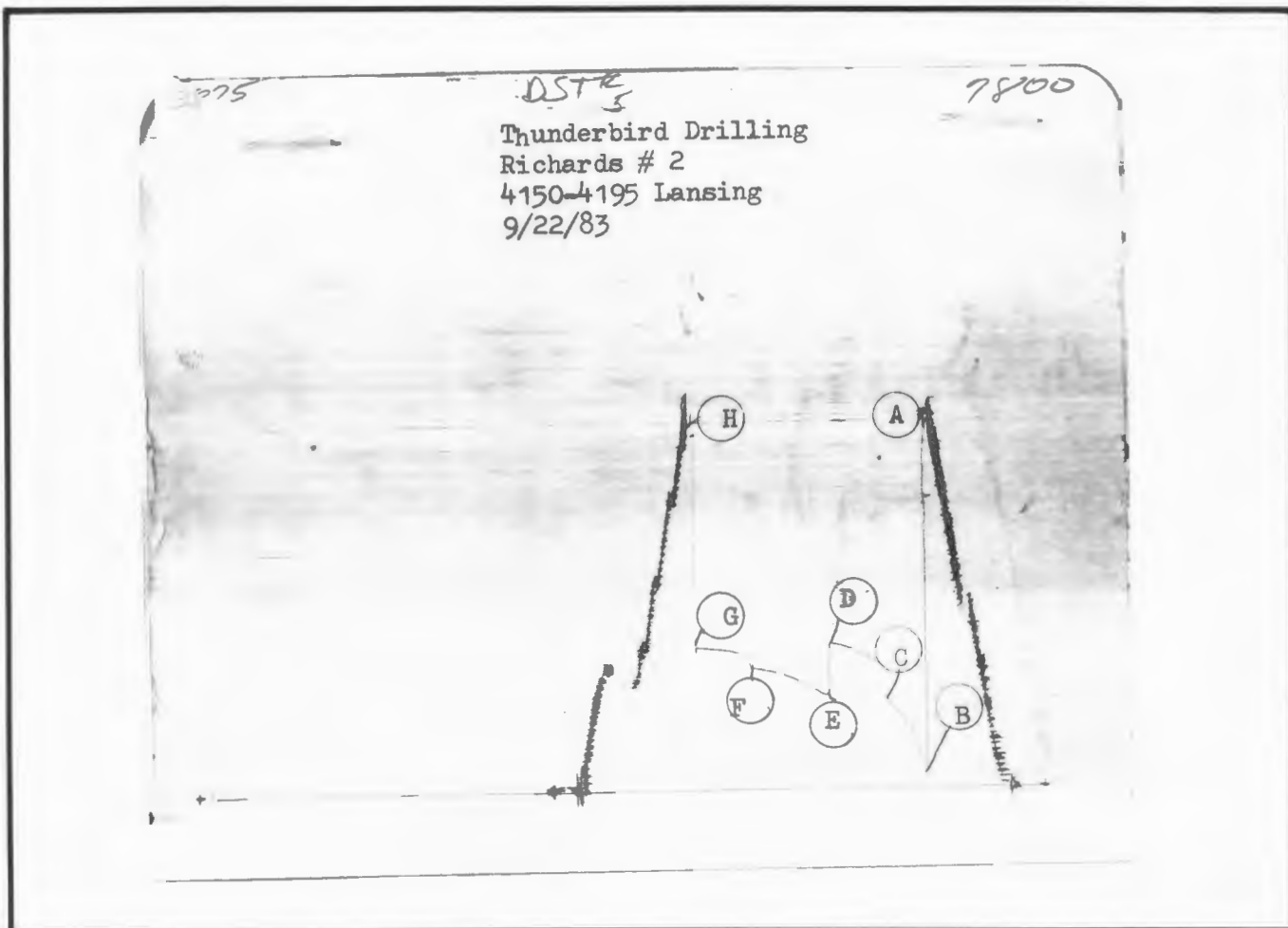
SUPERIOR TESTERS

368 West Second, Hoisington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Iane
 LEASE & WELL NO Richards # 2 ELEVATION 2759 KB. DATE 9/22/83 FORMATION TESTED Lansing
 SEC 20 TWP 16 RANGE 29 INTERVAL TESTED 4150 TO 4195 TOTAL DEPTH 4195
 TEST NO. # 5 D.K. yes TOP PACKER DEPTH 4150 FT. BOTTOM PACKER DEPTH ---- FT. PACKER SIZE 6 & 3/4
 STRADDLE no CONV yes TOOL SIZE 5 1/2 OD. TOOL JOINT SIZE 4 1/2 FH. ANCHOR LENGTH 45 FT
 HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT Circ. Sub SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN
 REVERSED OUT no VISCOSITY 46 WEIGHT 9.7 DUAL PACKERS no DID PACKER HOLD yes DID TOOL PLUG no
 DRILLING CONTRACTOR T-Bird # 1
 TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 3575 FT. I.D. DRILL PIPE 3.80 IN
 TOOL JOINT SIZE 4 1/2 XH. IN. LENGTH WEIGHT PIPE 563 FT. I.D. WEIGHT PIPE 2.75 IN
 TOOL JOINT SIZE ---- IN. LENGTH DRILL COLLARS ---- FT. I.D. DRILL COLLARS ---- IN
 TOOL OPEN I.F.P. FROM 5:15 a. m to 5:45 a. m Hr 30 min From (B) 95 P.S.I. to (C) 510 P.S.I
 TOOL CLOSED I.C.I.P. FROM 5:45 a. m to 6:30 a. m Hr 45 min (D) 854 P.S.I
 TOOL OPEN F.F.P. FROM 6:30 a. m to 7:30 a. m Hr 60 min From (E) 553 P.S.I. to (F) 703 P.S.I
 TOOL CLOSED F.C.I.P. FROM 7:30 a. m to 8:15 a. m Hr 45 min (G) 832 P.S.I
 INITIAL HYDROSTATIC PRESSURE (A) 2235 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 224 MAXIMUM TEMPERATURE 104 °F
 BLOW Strong blow off bottom of bucket in 2 minutes 1st opening.
Strong blow off bottom of bucket in 6 minutes 2nd opening.
 RECOVERY - TOTAL FEET 1550
 RECOVERED 1550 FEET OF Oil spotted slightly muddy water.
 RECOVERED 60 FEET OF Gas in the pipe.
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 RECOVERED _____ FEET OF _____
 REMARKS None.

TICKET NO. 7800

WITNESSED BY: Stanton Cox TOOL OPERATOR Tyan Suppes



This is an actual photograph of recorder chart.

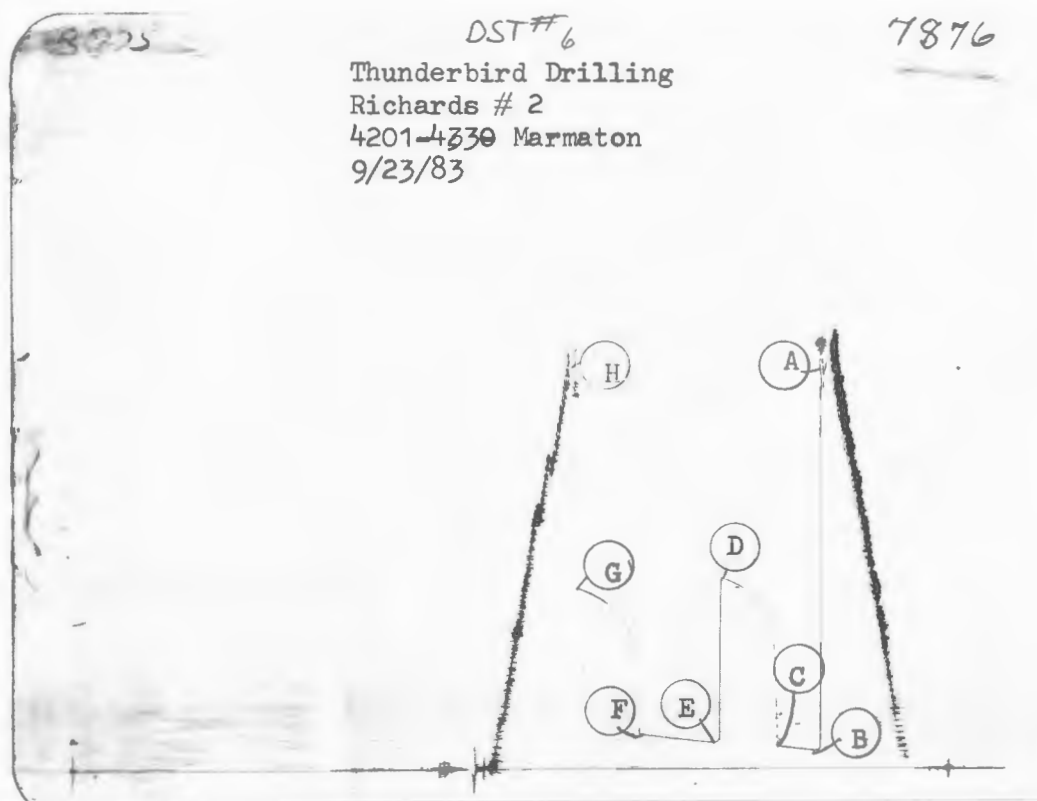
POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>2235</u>	<u>2266</u>	P.S.I.
(B) First Initial Flow Pressure	<u>95</u>	<u>102</u>	P.S.I.
(C) First Final Flow Pressure	<u>510</u>	<u>521</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>854</u>	<u>854</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>553</u>	<u>553</u>	P.S.I.
(F) Second Final Flow Pressure	<u>703</u>	<u>714</u>	P.S.I.
(G) Final Closed-in Pressure	<u>832</u>	<u>843</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>2224</u>	<u>2140</u>	P.S.I.

SUPERIOR TESTERS
368 West Second, Holsington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Lane
LEASE & WELL NO. Richards # 2 ELEVATION 2759 KB. DATE 9/23/83 FORMATION TESTED Marmaton
SEC. 20 TWP. 16 RANGE 29 INTERVAL TESTED 4201 TO 4330 TOTAL DEPTH 4330
TEST NO. # 6 D.K. YES TOP PACKER DEPTH 4201 FT. BOTTOM PACKER DEPTH --- FT. PACKER SIZE 6 & 3/4
STRADDLE no CONV. yes TOOL SIZE 5 1/2 OD. TOOL JOINT SIZE 4 1/2 FH. ANCHOR LENGTH 129 FT.
HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT none SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN.
REVERSED OUT no VICISITY 40 WEIGHT 9.4 DUAL PACKERS no DID PACKER HOLD yes DID TOOL PLUG no
DRILLING CONTRACTOR T-Bird # 1
TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 3675 FT. I.D. DRILL PIPE 3.80 IN.
TOOL JOINT SIZE 4 1/2 XH. IN. LENGTH WEIGHT PIPE 563 FT. I.D. WEIGHT PIPE 2.75 IN.
TOOL JOINT SIZE --- IN. LENGTH DRILL COLLARS --- FT. I.D. DRILL COLLARS --- IN.
TOOL OPEN I.F.P. FROM 7:45 a. m to 8:15 a. m Hr. 30 min From (B) 106 P.S.I. to (C) 127 P.S.I.
TOOL CLOSED I.C.I.P. FROM 8:15 a. m to 9:00 a. Hr. 45 min (D) 1046 P.S.I.
TOOL OPEN F.F.P. FROM 9:00 a. m to 10:00 a. m Hr. 60 min From (E) 148 P.S.I. to (F) 191 P.S.I.
TOOL CLOSED F.C.I.P. FROM 10:00 a. m to 10:45 a. m Hr. 45 min (G) 1004 P.S.I.
INITIAL HYDROSTATIC PRESSURE (A) 2319 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2299 MAXIMUM TEMPERATURE 108 °F
BLOW Weak blow building 5" into water 1st opening.
Weak blow building 4" into water 2nd opening.
RECOVERY - TOTAL FEET 240
RECOVERED 240 FEET OF Muddy water, with few spots of Oil on top.
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
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RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
RECOVERED _____ FEET OF _____
REMARKS None.

TICKET NO. 7876

WITNESSED BY: Stanton Cox TOOL OPERATOR Pat Stevenson



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2319	2277	P.S.I.
(B) First Initial Flow Pressure	106	106	P.S.I.
(C) First Final Flow Pressure	127	125	P.S.I.
(D) Initial Closed-in Pressure	1046	1056	P.S.I.
(E) Second Initial Flow Pressure	148	148	P.S.I.
(F) Second Final Flow Pressure	191	191	P.S.I.
(G) Final Closed-in Pressure	1004	1008	P.S.I.
(H) Final Hydrostatic Mud	2298	2193	P.S.I.

SUPERIOR TESTERS

368 West Second, Holsington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Lane
 LEASE & WELL NO. Richards # 2 ELEVATION 2759 KB. DATE 9/24/83 FORMATION TESTED Arbuckle
 SEC 20 TWP 16 RANGE 29 INTERVAL TESTED 4325 TO 4390 TOTAL DEPTH 4390
 TEST NO. #7 O.K. yes TOP PACKER DEPTH 4325 FT. BOTTOM PACKER DEPTH --- FT. PACKER SIZE 6 & 3/4
 STRADDLE no CONV yes TOOL SIZE 5 1/2 OD. TOOL JOINT SIZE 4 1/2 FH. ANCHOR LENGTH 65 FT.
 HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT none SURFACE CHOKE SIZE 1/2 IN. BOTTOM CHOKE SIZE 1/2 IN.
 REVERSED OUT no VICOSITY 50 WEIGHT 9.6 DUAL PACKERS no DID PACKER HOLD yes DID TOOL PLUG no
 DRILLING CONTRACTOR T-Bird # 1

TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 3727 FT. I.D. DRILL PIPE 3.80 IN.
 TOOL JOINT SIZE 4 1/2 XH. IN. LENGTH WEIGHT PIPE 563 FT. I.D. WEIGHT PIPE 2.75 IN.
 TOOL JOINT SIZE --- IN. LENGTH DRILL COLLARS --- FT. I.D. DRILL COLLARS --- IN.
 TOOL OPEN I.F.P. FROM 2:45 a. m to 3:15 a. m Hr. 30 min From (B) 42 P.S.I. to (C) 42 P.S.I.
 TOOL CLOSED I.C.I.P. FROM 3:15 a. m to 3:45 a. m Hr. 30 min (D) 234 P.S.I.
 TOOL OPEN F.F.P. FROM 3:45 a. m to 4:15 a. m Hr. 30 min From (E) 42 P.S.I. to (F) 42 P.S.I.
 TOOL CLOSED F.C.I.P. FROM 4:15 a. m to 4:45 a. m Hr. 30 min (G) 180 P.S.I.

INITIAL HYDROSTATIC PRESSURE (A) 22351 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2161 MAXIMUM TEMPERATURE 108 °F

BLOW Weak blow died in 10 minutes 1st opening, 1/4" in bucket.

Weak off top of bucket died in 8 minutes 2nd opening.

RECOVERY - TOTAL FEET 5

RECOVERED 5 FEET OF Mud.

RECOVERED --- FEET OF ---

RECOVERED --- FEET OF ---

RECOVERED --- FEET OF ---

RECOVERED --- FEET OF ---

RECOVERED --- FEET OF ---

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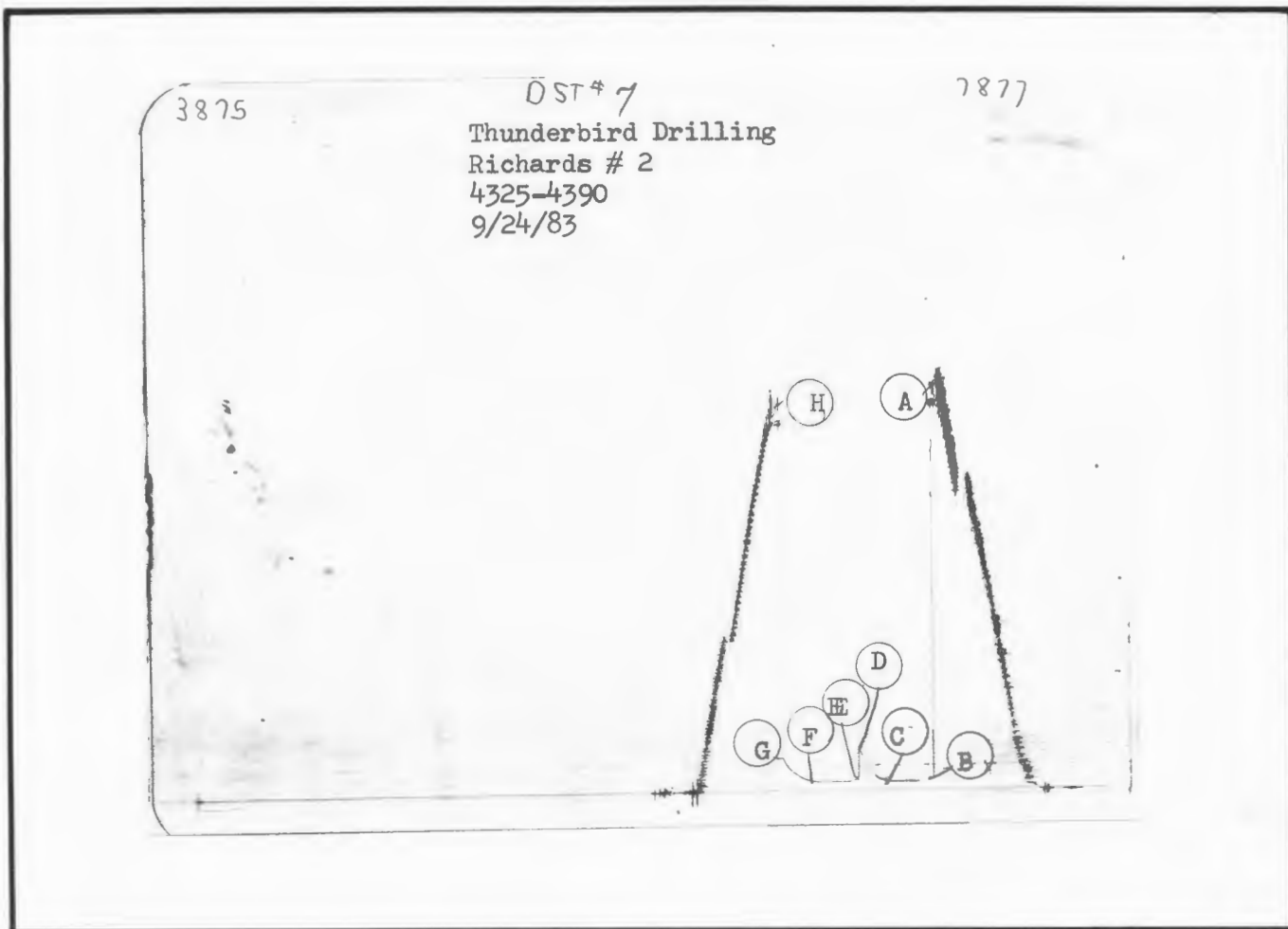
RECOVERED --- FEET OF ---

RECOVERED --- FEET OF ---

REMARKS None.

TICKET NO. 7877

WITNESSED BY Stanton Cox TOOL OPERATOR Pat Stevenson



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	2235	2266	P.S.I.
(B) First Initial Flow Pressure	42	48	P.S.I.
(C) First Final Flow Pressure	42	48	P.S.I.
(D) Initial Closed-in Pressure	234	244	P.S.I.
(E) Second Initial Flow Pressure	42	53	P.S.I.
(F) Second Final Flow Pressure	42	53	P.S.I.
(G) Final Closed-in Pressure	280	191	P.S.I.
(H) Final Hydrostatic Mud	2161	2193	P.S.I.

SUPERIOR TESTERS

368 West Second, Hoisington, Kansas

COMPANY Thunderbird Drilling STATE Kansas COUNTY Lane
 LEASE & WELL NO. Richards # 2 ELEVATION 2759 KB. DATE 9/24/83 FORMATION TESTED Arbuckle
 SEC. 20 TWP. 16 RANGE 29 INTERVAL TESTED 4380 TO 4420 TOTAL DEPTH 4420
 TEST NO. # 8 D.K. yes TOP PACKER DEPTH 4380 FT. BOTTOM PACKER DEPTH ----- FT. PACKER SIZE 6 & 3/4
 STRADDLE no CONV. yes TOOL SIZE 5 1/2 OD. TOOL JOINT SIZE 4 1/2 FH. ANCHOR LENGTH 40 FT.
 HOLE SIZE 7 & 7/8 EXTRA EQUIPMENT none SURFACE CHOKE SIZE 1 1/2 IN. BOTTOM CHOKE SIZE 1 1/2 IN.
 REVERSED OUT no VISCOSITY 53 WEIGHT 9.6 DUAL PACKERS no DID PACKER HOLD yes DID TOOL PLUG no
 DRILLING CONTRACTOR T-bird # 1

TOOL JOINT SIZE 4 1/2 FH. IN. LENGTH DRILL PIPE 3777 FT. I.D. DRILL PIPE 3.80 IN.
 TOOL JOINT SIZE 4 1/2 XH. IN. LENGTH WEIGHT PIPE 563 FT. I.D. WEIGHT PIPE 2.75 IN.
 TOOL JOINT SIZE ----- IN. LENGTH DRILL COLLARS --- FT. I.D. DRILL COLLARS ----- IN.
 TOOL OPEN I.F.P. FROM 5:30 p. m to 6:00 p. m Hr 30 min From (B) 42 P.S.I. to (C) 42 P.S.I.
 TOOL CLOSED I.C.I.P. FROM 6:00 p. m to 6:30 p. m Hr 30 min (D) 170 P.S.I.
 TOOL OPEN F.F.P. FROM 6:30 p. m to 7:00 p. m Hr 30 min From (E) 42 P.S.I. to (F) 42 P.S.I.
 TOOL CLOSED F.C.I.P. FROM 7:00 p. m to 7:30 p. m Hr 30 min (G) 63 P.S.I.
 INITIAL HYDROSTATIC PRESSURE (A) 2277 P.S.I. FINAL HYDROSTATIC PRESSURE (H) 2161 MAXIMUM TEMPERATURE 104 °F

BLOW Weak blow died in 9 minutes 1st opening.
No blow 2nd opening.

RECOVERY - TOTAL FEET 5
 RECOVERED 5 FEET OF Mud, with traces of Oil on top.
 RECOVERED ----- FEET OF -----
 RECOVERED ----- FEET OF -----
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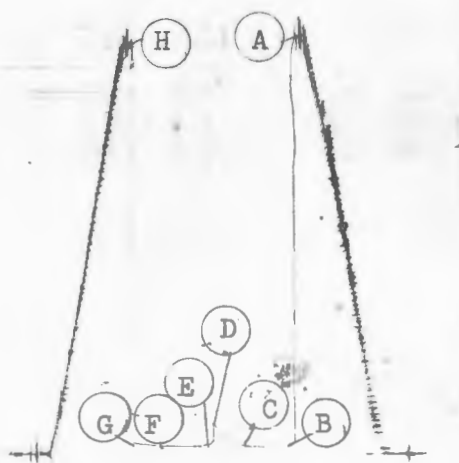
REMARKS None.

TICKET NO. 7878
 WITNESSED BY: Stanton Cox TOOL OPERATOR Pat Stevenson

3875

OST #
 Thunderbird Drilling
 Richards # 2
 4380-4420
 9/24/83

7878



This is an actual photograph of recorder chart.

POINT	PRESSURE		
	FIELD READING	OFFICE READING	
(A) Initial Hydrostatic Mud	<u>2277</u>	<u>2287</u>	P.S.I.
(B) First Initial Flow Pressure	<u>42</u>	<u>42</u>	P.S.I.
(C) First Final Flow Pressure	<u>42</u>	<u>42</u>	P.S.I.
(D) Initial Closed-in Pressure	<u>170</u>	<u>170</u>	P.S.I.
(E) Second Initial Flow Pressure	<u>42</u>	<u>46</u>	P.S.I.
(F) Second Final Flow Pressure	<u>42</u>	<u>46</u>	P.S.I.
(G) Final Closed-in Pressure	<u>63</u>	<u>63</u>	P.S.I.
(H) Final Hydrostatic Mud	<u>2161</u>	<u>2235</u>	P.S.I.